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Improving the wellbeing of staff who work in palliative care settings: a systematic review of psychosocial interventions

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Improving the wellbeing of staff who work in palliative care settings: a systematic review of psychosocial interventions

Abstract

Background: Staff in palliative care (PC) settings perform emotionally demanding roles which may lead to psychological distress including stress and burnout. Therefore, interventions have been designed to address these occupational risks.

Aim: To investigate quantitative studies exploring the effectiveness of psychosocial interventions that attempt to improve psychological wellbeing of PC staff.

Design: A systematic review was conducted according to methodological guidance from UK Centre for Reviews and Dissemination (2009).

Data Sources: A search strategy was developed based on initial scans of PC studies. Potentially eligible research papers were identified by searching the following databases: CINAHL, MEDLINE (Ovid), PsycINFO & Web of Science. Two reviewers independently screened studies against pre-set eligibility criteria. To assess quality, both researchers separately assessed the remaining studies using the Quality Assessment Tool for Quantitative Studies .

Results: 1786 potentially eligible papers were identified - 9 remained following screening and quality assessment. Study types included two randomised controlled trials (RCTs), two non-RCT designs, four one-group pre-post evaluations, and one process evaluation. Studies took place in United States of America and Canada (5), Europe (3) and Hong Kong (1). Interventions comprised a mixture of relaxation, education, support and cognitive training

and targeted: stress, fatigue, burnout, depression and satisfaction. The RCT evaluations didn't improve psychological wellbeing of PC staff. Only two of the quasi-experimental studies appeared to show improved staff wellbeing though these studies were methodologically weak.

Conclusions: There is an urgent need to address the lack of intervention development work and high quality research in this area.

Keywords

Palliative Care, Staff, Psychosocial Intervention, Wellbeing

What is already known about the topic?

- Staff working within PC settings can suffer from stress and burnout
- Researchers have advocated the use of psychosocial interventions to improve staff wellbeing and/or reduce staff distress.
- It is not known however whether psychosocial interventions with staff in PC have been successful.

What this paper adds?

- This is the first review of the effectiveness of psychosocial interventions that attempt to improve the psychological wellbeing of PC staff. The review has established that there is limited research, which is of inadequate quality to establish the effectiveness of psychosocial interventions to improve the psychological wellbeing of PC staff

Implications for practice, theory or policy?

- This review demonstrates it is impossible at this time to recommend or promote any specific psychosocial intervention.
- Well-designed research, following MRC guidelines, is needed to create, develop and evaluate psychosocial interventions to improve the psychological wellbeing of PC staff.

Background

There has been a substantial amount of research, addressing the quality of life (QOL) and psychological wellbeing of both patients and their family caregivers in the palliative care (PC) context.^{1,2} However, there is relatively little research to address the psychological wellbeing of the staff in these settings. Staff support is a vital issue in PC as employers have a legal and moral responsibility to ensure staff wellness³ and staff wellbeing affects quality of patient care.^{4,5}

PC work has numerous emotional demands that may lead to staff stress, including absorption of negative emotional responses, breaking bad news, challenges to personal beliefs, coping with inability to cure, immersion in emotional clashes, poorly defined roles, recurrent exposure to death, working in an area of uncertainty, patient suffering, and secondary trauma.⁶⁻⁸ Ultimately, these demands affect staff emotional management,⁹ and it is estimated that 50% of PC staff are at risk of poor psychological outcomes as a result of insufficient ability to cope with these demands.¹⁰

This review aims to examine quantitative studies to explore the effectiveness of psychosocial interventions designed to improve psychological outcomes for PC staff. However, there is no clear consensus in the literature of what constitutes a psychosocial intervention or a psychological outcome. Psychosocial interventions are defined broadly as interventions that aim to modify psychological or social factors as opposed to biological ones¹¹ or more specifically as any approach involving cognitive-behavioural techniques, stress management, relaxation training, education, hypnosis, or other experiential techniques.¹² The latter definition is employed in this review.

Psychological outcomes are defined in this review as both the extent to which a person experiences psychological distress or the extent to which a person experiences positive affective states.¹³ Psychological distress can be operationalised in many ways, for example, as

anxiety or depression and, often within the PC literature, as stress and burnout.^{14,15} Yet, stress is another ambiguous term defined in several ways: a stimulus or pressure bearing down on the person;¹⁶ a psychological response to a social situation, which can result, if unalleviated, in ill-health;³ the ongoing interaction between a person and a situation¹⁷. Although definitions differ, research suggests that there are adverse effects on psychological outcomes for staff working in PC. Research has found 63% of health care staff working within inpatient oncology and PC experienced a great deal of stress.¹⁸ Hence, it has been recommended that interventions are required either to prevent stress from arising or to reduce existing stress to improve the psychological wellbeing of staff,³ and that employers and managers have a vital role to train their staff to utilize effective coping techniques^{19,20}, with recent qualitative research suggesting a skill-building intervention approach giving staff skills to utilize during work would make a meaningful impact on staff wellbeing.²¹

One negative outcome of stress is burnout.²² Burnout is characterised by cynicism, exhaustion and inefficacy²³ and has been conceived as an erosion of wellbeing.²⁴ In one study, 25% of PC nurses had high burnout levels,²⁵ which is similar to burnout levels in other health care settings.²⁶ More recently, cross-sectional research suggests burnout and psychological morbidity are significant issues for PC practitioners¹⁹, but there is some evidence to suggest that the use of preventative strategies can address this.²⁷

Despite empirical evidence highlighting the emotional risks inherent in PC work, this has not appeared to transform practice in any meaningful way.¹⁰ Researchers have expressed a need for directed interventions to improve psychological wellbeing and for rigorous outcome evaluation²⁸ It is the aim of this review to investigate the extent to which rigorously evaluated interventions exist in this area.

Aim

To investigate quantitative studies that have explored the effectiveness of psychosocial interventions that attempt to improve psychological outcomes for staff working within PC settings.

Methods

Design

A systematic review was conducted, following guidance from the UK Centre for Reviews and Dissemination (2009).²⁹ Our eligibility criteria specified that only studies published in English were to be included in the review. In terms of research methodology we were interested in studies that utilized quantitative methods as this better enabled conclusions about the intervention's effectiveness. The other inclusion criteria follow from the objective of the review: participants were staff (paid or voluntary) working within all PC settings (i.e. hospices, hospitals, and community settings); outcomes had to be psychological outcomes for staff, as defined earlier; and interventions had to be psychosocial, as defined earlier. An important aspect of our definition of psychosocial interventions is that there had to be an experiential and reflective component. For example, an art class for PC staff would not meet our definition of psychosocial intervention, but an art class which included some reflection on the experience, would meet our definition.

Data Sources

Databases were searched from CINAHL (from 1806), PsychINFO (from 1806), MEDLINE (from 1946), and Web of Science (from 1970) for articles published up until 13th March 2015. We used the key thesaurus search terms "Palliative Care OR Hospice" AND "Psychotherapy" AND "Psychological distress OR Wellbeing". The thesaurus, or medical subject heading, search terms were chosen as they were broad in their scope; for example, in

the MEDLINE search “psychotherapy” included art therapy, behaviour therapy (cognitive, relaxation, etc.), hypnosis, music therapy, etc. However, search terms were adapted, when necessary, for specific databases to ensure the search was as comprehensive as possible (see Appendix 1) as different key terms cover different topics in different databases. Grey literature was searched using the OpenGrey database but this did not identify any relevant articles; neither did searches of the reference lists of included studies generate any additional relevant studies.

Data extraction and quality assessment

The first reviewer assessed titles and abstracts of all articles found via the database searches and full text articles were obtained for studies that were potentially eligible. The second reviewer then examined the titles and abstracts of all the articles to ensure agreement in terms of exclusion. The two reviewers only disagreed about 1 article, which was resolved by discussion. To assess the studies’ quality, both researchers then separately assessed the remaining full text studies, after which disagreements were discussed until agreement was reached. The Quality Assessment Tool for Quantitative Studies was used; this tool was developed in Canada by the Effective Public Health Practice Project³⁰ to assess both the internal and external validity of studies, and has been found to be a reliable and valid tool.³¹

Results

Study characteristics

The searches within the four databases revealed 1786 articles, which were all screened. 1746 of these were rejected as, through reading the title and/or abstract, it was apparent that they did not meet the eligibility criteria. A total of 40 articles were then accessed for inclusion on the basis of their full text, and when duplicate articles were removed, 34 remained. A total of

24 articles were excluded because: there was no psychosocial intervention; the intervention was not for the benefit of PC staff but for patients; they did not include a psychological outcome measure; the intervention was not evaluated. A total of 10 articles remained, describing 9 studies which were incorporated into the review. For pictorial representation of this process, see figure 1.

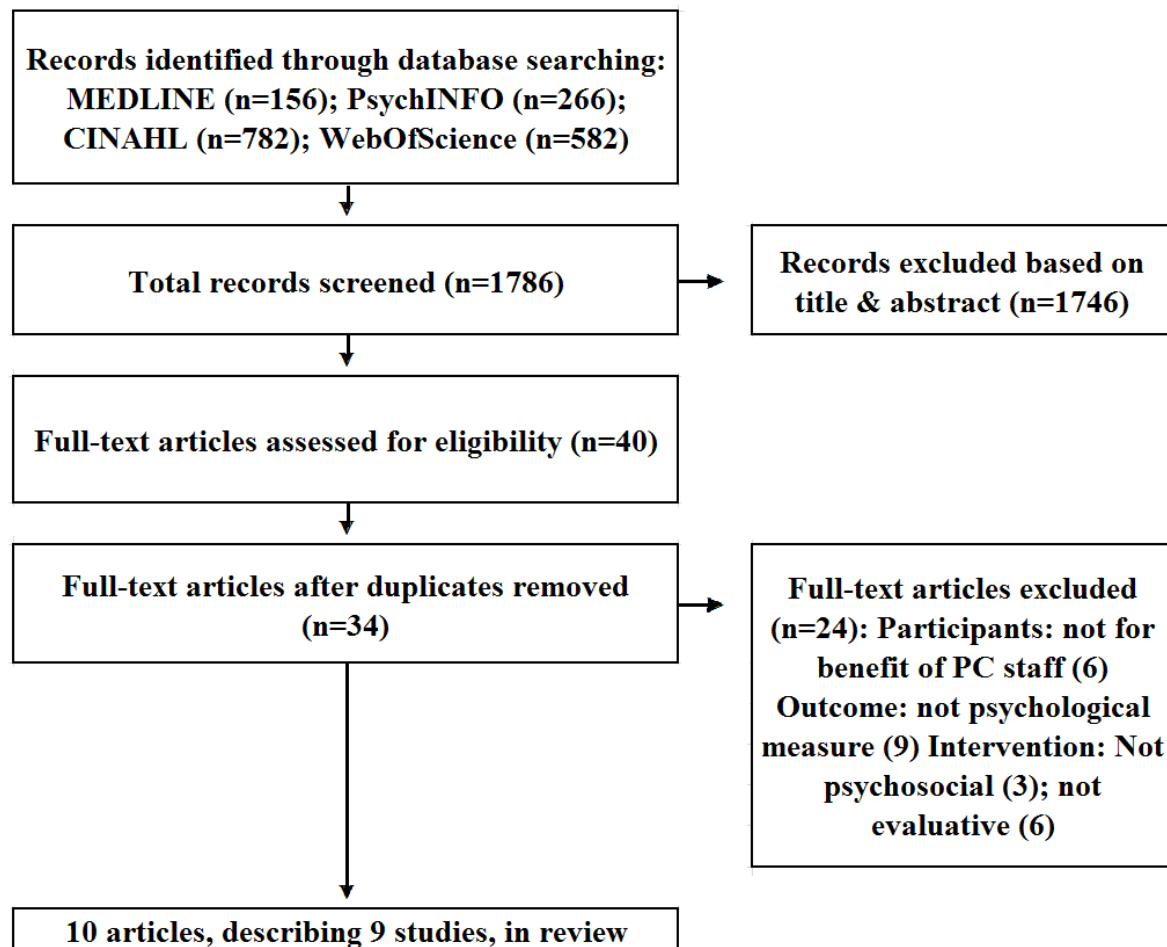


Figure 1. Flow diagram of study selection for the review.

There were a variety of different psychosocial interventions used in the studies including: an organizational-level intervention to aid staff wellbeing;³² a stress-reduction program;³³ group-based music therapy;^{34,35}; a psycho-existential intervention;^{36,37} a group-based behavioural sleep intervention;^{38,38}; and art therapy.^{40,41} See table 1 for detail about the studies design and

context and see table 2 for information on intervention content, proposed mechanisms, targeted outcomes, and methods of delivery.

Table 1: Study design & context

Study		Context	
<i>Authors</i>	<i>Design</i>	<i>Sample</i>	<i>Location</i>
van Staa et al. (2000) ³²	Process evaluation	24 members of staff in various roles within a PC unit	PCU in Rotterdam
Bruneau & Ellison (2004) ³³	One group pre-post design	18 nurses providing PC	UK NHS community hospital
Hilliard (2006) ³⁴	Two group quasi-experimental design	17 nurses, social workers, & chaplains in hospice	Hospice in New York, USA
Fillion, Duval, Dumont, Gagnon, Tremblay, Bairati, & Breitbart (2009) ³⁶	Randomized controlled design	109 PC nurses	Quebec, Canada
Melo & Oliver (2011) ³⁷	One group pre-post design	150 healthcare workers who care for the dying	Portugal
Salzano, Lindemann, & Tronsky (2013) ⁴⁰	One group pre-post design	20 hospice caregivers	Hospice in Northeast USA
Carter, Dyer, & Mikan (2013) ³⁸	One group pre-post design	9 agency hospice nurses	Hospice in central Texas
Wlodarczyk (2013) ³⁵	Randomized controlled design	68 hospice employees	Hospice in the Southeast USA

Potash, Ho, Chan,
Wang, & Cheng
(2014)⁴¹

Two group quasi-
experimental
design

132 PC workers (69 in
art-therapy group, 63
in standard skills-based
group)

Various settings in
Hong Kong

Table 2: Intervention content, mechanism, outcomes, & delivery

Study	Intervention content	Proposed mechanism	Target outcome measure relating to wellbeing	Method of delivery
van Staa, et al (2000) ³²	Group-based training & support. Team building, support meetings, relaxation exercise, & expression of feelings & emotions	Support to enhance growth, give emotional support & deal with grief	A researcher designed stress measure	90 minute weekly meetings from January till December 1996, led by 2 therapists
Bruneau & Ellison (2004) ³³	Stress-reduction program. Psychoeducation, cognitive coping skills & relaxation techniques	Providing coping skills to reduce stress	Nurses Stress Scale (NSS ⁴⁵)	Two 2 hour sessions, 4 weeks apart, led by 2 experienced health practitioners
Hilliard (2006) ³⁴	Group-based music therapy. Music-based meditative relaxation, psychoeducation, CBT, humanist approach, stress management, team building & coping skills	Using music to foster team building & facilitate coping	Compassion Satisfaction/Fatigue Self-Test for Helpers (CFS ⁴³)	Six weekly 1 hour music therapy sessions, led by music therapists
Fillion, et al. (2009) ³⁶	Existential intervention. Guided reflections, experiential exercises, & education based on logotherapy	Providing skills to cope with emotional & existential demands	Shortened Profile of Mood States (POMS-37 ⁴⁷)	Four weekly meetings, led by psychologists
Melo & Oliver (2011) ³⁷	Psycho-existential training. Psychoeducation - on death anxiety, the psychology of dying, & difficulties in communication	Enabling people to address their death anxiety & improve staff well-being	A researcher designed burnout measure	6 day course, led by a person-centred therapist
Salzano, et al. (2013) ⁴⁰	Group art-making experience. Participants worked in pairs to create quilt panels, then as a team join these together & then reflected on experience	Uses social support to improve well-being	Maslach Burnout Inventory (MBI ⁴²)	One 1 hour session, researcher led
Carter, et al. (2013) ³⁸	Group-based behavioural sleep intervention. Cognitive therapy, stimulus control, sleep hygiene, & relaxation techniques	Improving sleep quality should reduce insomnia & prevent depression & burnout	Center for Epidemiological Studies–Depression (CES-D ⁴⁶)	Two 1 hour educational sessions
Włodarczyk (2013) ³⁵	Group-based music therapy. Group music intervention for grief resolution	Offers a means to work through grief	Hospice Clinician Grief Inventory (HCHI ⁴⁴)	One 1 hour session, researcher led
Potash, et al. (2014) ⁴¹	Art-therapy-based supervision. Art group - breathing exercise, guided visualisation, art, reflective writing, & discussions. Skills group - learned new clinical skills, shared cases & case analysis	Reduces exhaustion by enhancing emotional awareness & reducing death anxiety	MBI ⁴²	Art therapy - Six 3 hour weekly sessions, led by an art therapist. Skills-based - Three 6 hour daily sessions, led by a counselling psychologist & nurse consultant

Effectiveness of interventions

Many of the interventions failed to do what they aimed to do – the support group, the stress reduction program, the meaning-centred intervention, and a cognitive behavioural sleep intervention all failed to significantly improve psychological outcomes (though some did offer some secondary benefits). Nor did they demonstrate a moderate effect (defined as an effect size (ES) of at least 0.30). Art therapy⁴¹ and didactic music therapy³⁴ demonstrated a moderate improvement in psychological outcomes. Additionally, it should be highlighted that the majority of authors indicate that psychological wellbeing was not significantly impaired on the outcome measure pre-intervention³³⁻³⁷, or else this wasn't clear.^{40,41} However in one study staff were at an increased risk of major depression³⁸ and in another, staff were suffering high stress levels.³² See table 3 for additional details regarding ESs and secondary findings.

Table 3: Overall effectiveness of the psychosocial interventions reviewed

<i>Intervention</i>	<i>Improved psychological wellbeing?</i>	<i>Secondary findings?</i>
<i>van Staa et al. (2000)³² - Caring for caregivers support group</i>	For pre-post scores on the researcher's designed stress measure: <i>Support group ES = -0.81</i>	N/A
<i>Bruneau & Ellison (2004)³³ - Stress reduction program</i>	For pre-post scores on the NSS ⁴⁵ : <i>Stress reduction ES = 0.15</i>	100% of staff valued the cognitive restructuring & 10/15 liked the Progressive muscle relaxation
<i>Hilliard (2006)³⁴ - Music therapy</i>	For pre-post on the CFS ⁴³ : <i>Ecological Music therapy ES = 0.01;</i> <i>Didactic Music therapy ES = 0.32</i>	Significant improvement in team building in both groups
<i>Fillion, et al. (2009)³⁶ - Meaning-centered intervention</i>	For pre-post scores on POMS-37 ⁴⁷ : <i>Meaning-centred intervention ES = 0.10;</i> <i>Waiting-list control group ES = 0.26</i>	Experimental group reported more perceived benefits of working in PC
<i>Melo & Oliver (2011)³⁷ - Course to reduce death anxiety</i>	For pre-post scores on the emotional exhaustion scale of the researcher's designed burnout measure: <i>Death anxiety course ES = 0.26</i>	Increase in professional fulfilment & improved quality of relationships with patients & families

Salzano, et al. (2013)⁴⁰ - Collaborative art-making	For pre-post scores on the MBI ^{42*} (Maslach, Jackson, & Leiter, 1996): emotional exhaustion subscale: Art-making group ES = 0.09**; Control group ES = 0.01** cynicism subscale: Art-making group ES = 0.04** Control group ES = -0.11**	Experimental group showed an increase in work support measures
Carter, et al. (2013)³⁸ - Cognitive behavioural sleep intervention	For pre-post score on CES-D ⁴⁶ : Sleep intervention ES = 0.26	On-site delivery was valued & people valued the intervention
Wlodarczyk (2013)³⁵ - Group music intervention	For pre-post grief scores on the HCHI ⁴⁴ : Group-Music intervention ES = 0.07 Control group ES = ***	Significant decline for participants on the subscale measure personal sacrifice burden
Potash, et al. (2014)⁴¹ - Art therapy	For pre-post scores on MBI ^{42*} : emotional exhaustion subscale: Art-therapy group ES = 0.31; Skills-based group ES = 0.07 cynicism subscale: Art-therapy group ES = -0.15; Skills-based group ES = -0.31	Art therapy group showed increased emotional awareness

* It was not possible to work out the ES for the entire measure, as there was insufficient detail given. It was possible to obtain ESs for the emotional exhaustion & cynicism subscales, the professional efficacy subscale wasn't significantly different in either of these 2 studies.

** Whilst this study did not give standard deviations (SDs) for the experimental or control group the ESs were worked out using the SDs from the Potash et al. (2014)⁴¹ study as they also found significant differences in the emotional exhaustion and cynicism subscale of the MBI (Maslach, et al. 1996).

***This study did not have a control group score at pre-test so it was not possible to work out the ES for the control group.

Methodological quality

An important consideration of any systematic review is methodological quality. The methodological quality of the quantitative studies was assessed by two researchers using the Quality Assessment Tool for Quantitative Studies,³⁰ which provides an overall rating of weak, moderate or strong quality for each study. Overall only two^{35,36} of the nine studies were of sufficient quality to be rated as moderate and the remainder were considered weak. All studies included were prone to selection bias, as the participants were self-selecting in choosing to participate in the interventions. In contrast, a general strength was that all studies, except two,^{32, 37} utilized valid and reliable measures for assessing outcomes. The primary difference between the weak and moderate studies lay in the strength of their research design,

with the two moderate studies using RCT designs,^{35,36} although one of these studies³⁵ did not include a pre-test of the control group, thereby compromising the internal validity of the study.

Outcome measures

The quantitative studies utilized a range of measures to assess psychological distress and wellbeing. A twice utilized measure was the Maslach Burnout Inventory (MBI⁴²).^{40,41} The remaining studies utilized a range of measures: the Compassion Satisfaction/Fatigue Self-Test for Helpers (CFS⁴³);³⁴ the Hospice Clinician Grief Inventory (HCHI⁴⁴);³⁵ the Nurses Stress Scale (NSS⁴⁵);³³ the Center for Epidemiological Studies–Depression (CES-D⁴⁶);³⁸ and the vigour/activity subscale of the Shortened Profile of Mood States (POMS-37⁴⁷).³⁶ Finally, two studies used researcher constructed questionnaires to assess stress/burnout and did not utilize a standardised measure.^{32,37}

Discussion

Interpretation of results

In systematically reviewing psychosocial interventions for PC staff, little evidence was found of adequate quality to evaluate the success of interventions in this area. It is well known that research in PC is prone to difficulties⁴⁸ so it is perhaps unsurprising that severe methodological issues were apparent in most of these studies.

Randomized controlled trials. Only two of the eleven studies utilized RCTs. Sibbald and Roland emphasise that, due to their important features, RCTs are the most rigorous method for assessing whether there is a causal relationship between a treatment and an outcome; in contrast, other designs can only detect associations – as we cannot exclude the possibility that the effect was due to a third factor.⁴⁹ In the two RCTs the process of randomization was well

described, although one study lacked a pre-test measure score for the control group.³⁵ In these higher quality studies, the effect sizes found for the interventions (a group-music intervention and a meaning-centred intervention) were weak. For the remaining studies, a lack of randomization, and often the lack of a comparison group, prevents us from making any strong inferences about intervention effectiveness.

Outcome measures. Studies used a variety of measures relating to psychological outcomes, and it is therefore difficult to directly compare findings. This raises the issue of what measure should be seen as optimal when assessing psychological outcomes for staff in PC. In other words, which psychological outcomes should be targeted by an intervention? Owing to the fact that stress and burnout are the most common psychological outcomes mentioned in the literature, the MBI⁴², CFS⁴³, and the NSS⁴⁵ could be frontrunners in choosing a valid and reliable measure of psychological outcomes in PC staff.

Sample size and small number of studies. In the reviewed studies, the sample sizes were small (9-150), and the number of studies in general was limited. These limitations hinder the statistical power and undermine the generalizability of the results to other staff working within PC.

Psychosocial interventions. The present review includes a range of psychosocial interventions which propose various psychosocial mechanisms responsible for their effects on wellbeing (see table 2). However, due to the lack of meaningful improvement in many cases, the frameworks underlying these interventions are questionable. It is not clear from the literature reviewed whether the interventions were developed based on a sound model of psychological processes, except in the case of the meaning-centered intervention³⁶ in which the authors reference their development work in detail. This modelling phase is the first step in intervention development and, in its absence, the likelihood of an intervention being

effective reduces. Therefore, this could explain why the interventions reviewed were largely ineffective.

Due to these limitations, we cannot make any conclusive recommendations regarding what psychosocial interventions could meaningfully improve psychological outcomes for staff working within PC settings.

Implications for practice and future research

Better quality effectiveness research

The results of this systematic review highlights the need for better evaluation of psychosocial interventions for staff which supports the view of Belletti and colleagues,²⁸ that PC needs interventions that are effectively evaluated with scientifically based outcome evaluations. Kamau and colleagues¹⁰ also indicate that research has yet to have a meaningful impact upon practice. The implications of this review are that more research of a higher quality is necessary to evaluate effective psychosocial interventions to improve psychological outcomes for PC staff. A meta-synthesis⁴⁸ focusing on interventions with patients and carers has established that there are many challenges and limitations to carrying out research within PC. Many of these challenges are likely to exist when developing interventions with PC staff such as: inadequate transformation of evidence into practice; methodological challenges make 'pure' RCTs designs difficult to achieve; and studies are often weakened due to self-selection (a problem we found in all studies reviewed).⁴⁸ The same meta-synthesis suggested what would be necessary to ensure best practice in terms of evaluating studies for PC: implementation as a process – taking necessary steps to engage with stakeholders and undertake preparatory work to lessen any implementation concerns; using a precise recruitment strategy; optimising the study design to ensure it is rigorous as possible –

utilizing RCT methods.⁴⁸ On the basis of the findings in this review, a similar set of recommendations could be made for interventions with PC staff.

Better intervention development

Psychosocial interventions should be rigorously constructed, developed and implemented using MRC guidelines.⁵⁰ Research with PC staff offers some pertinent information in regard to how to ensure an intervention's success. First of all, interventions should be grounded firmly in sound theoretical roots, validated by experts and piloted with the staff to ensure it meets their needs⁵¹. Additionally, the skills and methods gained should be of benefit to staff during their working day, for example staff being able to use the skills and techniques of mindfulness in their daily work to support their patients and look after themselves⁵². Finally, a lot of the literature specifically focuses on what makes a support group successful - members sharing experiences, establishing relationships, confidentiality, having an allocated time⁵³, having self-aware members, having leader involvement, inclusion of clerical and administrative staff, suitable size, being held during working hours, having mandatory attendance, and having a paid outside facilitator.⁵⁴ Future work aiming to design a psychosocial intervention for PC staff should consider and act on these findings to ensure the best chance of successfully improving staff wellbeing.

Strengths and limitations of this review

This study was carried out using the systematic review method. A multidisciplinary team (psychologist, methodologist, health services researcher, systematic review specialist, palliative care staff) assisted in the generation of the search strategy. Careful searches were carried out using four relevant electronic databases. To ensure inclusion of studies was not

subjective, inclusion criteria was assessed by two researchers independently. Nevertheless, a number of limitations must be mentioned. First, there is a language bias in that only studies in English were included. Second, it is possible only more positive research was considered due to a publication bias. Due to these reasons, it is possible some studies may have gone unidentified.

Conclusion

On the basis of this review, it is not feasible to draw any meaningful conclusions about what psychosocial interventions are effective in improving the psychological wellbeing of PC staff. The implications, as discussed, are that the lack of high quality research needs to be addressed and, furthermore, interventions need to be developed more thoughtfully. This review increases awareness of the lack of research, and lack of quality of the research, in this area which means that, as yet, psychological outcomes for PC staff have not been meaningfully improved.

Declaration of conflicting interests

The authors have no conflict of interest to declare.

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Appendix 1 – terms used & results of database searches

In all databases the key MESH terms were exploded if the option was offered.

A. MEDLINE

In medline the search terms used were:

- “Palliative care OR Hospices”
- AND “Psychotherapy”
- AND “Stress, psychological OR Burnout, Professional OR Depression OR Anxiety OR Self Care OR Quality of Life OR Adaptation, Psychological”
 - o Limited by English
- Search last undertaken on 13th March 2015 - resulted in **156** records:
 - o all screened, however on the basis of title and abstract just **6 articles** were selected for full-text exploration
 - o 5 were excluded as they didn’t meet the inclusion criteria
 - o **1 psychosocial intervention** with staff

B. CINAHL

In CINAHL the search terms used were:

- “Palliative care OR Hospice and Palliative Nursing OR Terminal Care OR Hospice Care”
- AND “Psychotherapy OR Psychotherapy, Group”
- AND “Stress OR Depression OR Anxiety OR Quality of life OR Quality of working Life OR Coping OR Psychological wellbeing” (‘self-care’ was not used as this was found to refer to ‘self-care’ in a medical rather than psychological sense)
 - o Limited by peer reviewed
- Search last undertaken on 13th March 2015 - resulted in **782** records:
 - o all screened, however on the basis of title and abstract **22 articles** were selected for full-text exploration
 - o 15 were excluded as they didn’t meet the inclusion criteria

- **7 psychosocial interventions** with staff

C. PsychINFO

In PsychInfo the search terms used were:

- “Palliative care OR Hospice”
- AND “Treatment (this was a broader term for therapy) OR Death Education OR Intervention OR Psychoeducation OR Self help techniques OR Stress Management”
- AND “Stress OR Depression (emotion) OR Anxiety OR Wellbeing”
 - Limited by English
- Search last undertaken on 13th March 2015 - resulted in **266** hits
 - all screened, however on the basis of title and abstract just **7 articles** were selected for full-text exploration
 - 3 excluded as they didn’t meet inclusion criteria
 - **4 psychosocial interventions** with staff

D. Web of Science

In Web of Science the search terms used were:

- “Palliat* OR Hospice*”
- AND “Psycho* OR Intervention OR Support*”
- AND “*Stress OR Coping* OR Self*care OR Wellbeing”
- AND “Staff* OR Caregiver OR *Worker”
 - Limited by english
- Search last undertaken on 13th March 2015 - resulted in **582**
 - all screened, however on the basis of title and abstract just **5 articles** were selected for full-text exploration
 - 3 didn’t meet the inclusion criteria
 - **2 psychosocial interventions** with staff